

## THE MANAGER

## PROFIT MANAGEMENT

Data from the 54-year-old Cornell Dairy Farm Business Summary provide the basis for evaluating your dairy's production and financial performance

# Is your dairy meeting performance goals?

**You can't manage what you can't measure**, goes the old adage. It's equally important to measure what matters. Effective managers measure the most important factors for success in their business, compare the values with the performance of similar businesses and set annual goals for improvement.

You can establish areas for improvement by determining your dairy's position in five areas: herd size, rates of production, labor efficiency, cost control and financial position. The evaluation should be set within the context of the family's and business' mission and objectives.

The data presented here comes from the 2010 Dairy Farm Business Summary, coordinated by Cornell Cooperative Extension and economists at Cornell's Dyson School of Applied Economics and Management working with New York dairy producers.

## Farm Size



**Question:** Is size of the dairy sufficient to meet the family's mission and objectives? Or if the objective of the family is to increase profitability, is the size of the business a limiting factor?

**Goal:** There is a strong and well-established relationship between farm size and farm income on well-managed dairies. Net farm income without appreciation generally increases as herd size increases, ranging from about \$16,000 on dairies with 60 to 99 cows to more than \$1,030,000 on dairies with more than 900 cows, according to the Dairy Farm Business Summary.

## Rate of Production



**Question:** Is your milk production at a level to improve the likelihood your business will be profitable? Achieving high rates of milk production per cow doesn't guarantee a profit but on average, dairies with higher rates of production achieve higher incomes.

**Goal:** There is an upward trend in net farm income per cow when milk output increases over 22,000 lbs. per cow on the Dairy Farm Business Summary. In the 2010 summary, 12 of the 33 dairies that achieved \$1,000 or more of net farm income per cow sold more than 26,000 lbs. of milk per cow.

## Labor Efficiency



**Question:** How many pounds of milk are sold per worker on your dairy?

Labor efficiency used here is the pounds of milk sold per one full-time equivalent worker., which

represents 230 hours of work per month. As pounds of milk sold per worker increases, so does net farm income and labor and management income per operator.

**Goal:** In a stanchion barn, labor efficiency should be 600,000 lbs. or more sold per worker. Small freestall barns should achieve 800,000 lbs. or more per worker and large freestall barns should achieve more than 1 million lbs. of milk sold per worker.

## Cost Control



**Question:** Have you controlled costs in the three largest cost categories:

1. Purchased feed.
2. Hired labor.
3. Milk marketing expense. Machinery is a

close fourth.

If the three major costs in operating a business are under control, some of the smaller expense categories can be slightly higher and not seriously impact overall profit.

**Goal:** Purchased feed and crop expense per hundredweight of milk is one of the most useful feed cost measures. It includes all purchased feeds used on a dairy, as well as crop expenses associated with feed production.

On average, dairies with purchased feed and crop expenses exceeding \$6.50 per cwt. of milk sold reported below average farm profits, according to the Dairy Farm Business Summary. Dairies reporting less than \$6.50 per cwt. showed above average profits. Keep in mind that reducing feed and crop expenses doesn't necessarily lead to higher profits particularly when milk output per cow falls below average.

Most machinery costs are associated with crop production and should be analyzed with the crop enterprise. Controlling costs can have a significant impact on profitability. It should be evaluated in concert with labor efficiency: If machinery costs are high as a result of a dairy's using labor saving technologies, then high labor efficiency must result to offset the high machinery costs.

## FYI

■ This article is an excerpt from a paper prepared by Wayne Knoblauch, a professor in the Dyson School of Applied Economics and Management at Cornell University, and Linda Putnam, an Extension support specialist in the same department. Reach Professor Knoblauch at wak4@cornell.edu. Tel: 607.255.8429.

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## Financial Position

**Question:** Is the value of milk production greater than the cost of production? There are many ways to achieve a profit in dairying – high output per cow with corresponding costs, low output per cow with low costs or high output per cow with low costs. The latter – high output with low costs – is a characteristic of most of the highly profitable dairy farms in the Dairy Farm Business Summary.

**Goal:** Farm debt per cow should be below \$3,500. Businesses that have been in operation for many years without an increase in herd size should have debt per cow less than \$1,000. Total farm investment per cow (market value) should be less than \$9,000; for large dairy farms, \$8,000 or less.

## Farm business charts

A farm business chart is a useful tool to analyze a dairy business. **Table 1** shows the variation in farm income by decile. The figure at the top of each column is the average of the top 10% of the 204 farms in the Dairy Farm Business Summary for that factor. The other figures in each column are the average for the second 10%, third 10% and so on.

Referring to the table, dairy managers can determine where their business ranks by using several measures of farm profitability. Remember that each column is independently established, and the dairies making up the top 10% in the first column will not necessarily be on the top of any other column. The dairy farmer who ranks at or near the top of most of these columns is in a very enviable position.

**Table 1. Dairy business chart for farm management cooperators  
204 New York Dairy Farms, 2010**

Milk Receipts Per Cow	Milk Receipts Per Cwt.	Operating Cost Milk Production Per Cow	Operating Cost Milk Production Per Cwt.	Total Cost Milk Production Per Cow	Total Cost Milk Production Per Cwt.
\$5,056	\$19.76	\$1,742	\$10.09	\$2,903	\$14.79
4,718	18.65	2,307	11.64	3,547	15.81
4,520	18.29	2,647	12.46	3,786	16.67
4,370	18.07	2,898	13.16	3,958	17.45
4,189	17.85	3,081	13.74	4,116	17.83
4,013	17.71	3,246	14.13	4,265	18.76
3,778	17.52	3,428	14.66	4,442	19.67
3,491	17.31	3,612	15.43	4,625	21.11
3,125	17.03	3,872	16.60	4,863	23.11
2,402	16.49	4,272	19.05	5,330	28.67

## Profitability

Net Farm Income Without Appreciation		Net Farm Income With Appreciation		Labor & Management Income	
Total	Per Cow	Total	Per Cow	Per Farm	Per Operator
\$1,585,864	\$1,366	\$1,900,618	\$1,938	\$1,164,968	\$608,745
662,211	1,070	829,592	1,295	422,477	233,448
437,842	874	601,181	1,098	263,930	126,152
300,908	754	387,604	936	140,197	71,428
183,729	653	248,959	798	79,500	42,780
114,646	542	154,252	695	41,512	25,059
68,027	409	89,447	556	8,766	6,299
41,582	278	49,752	391	-14,134	-9,501
11,394	97	17,122	137	-46,357	-35,267
-78,221	-466	-60,960	-421	-166,013	-110,938

Source: Dairy Farm Management Business Summary, New York State, 2010.

Evaluating your dairy farm business isn't something you do once in a lifetime. Rather progress should be measured annually and new goals set for the following year. If a dairy isn't moving forward while other dairies are, then the business is moving backward relative to others in dairying. Performing an annual analysis and setting goals for the future is an excellent process to use to move your business forward. □

## Business analysis resources

**Cornell Dairy Farm Business Summary:** Annual financial analysis and education program offered through Cornell University and Cornell Cooperative Extension.

Contact: Local extension office in New York  
Website: [www.dfbs.cornell.edu](http://www.dfbs.cornell.edu) or [www.dfbs.aem.cornell.edu](http://www.dfbs.aem.cornell.edu)

**Cornell University PRO-DAIRY Dairy Profit Monitor:**

Monthly web-based program tracking selected financial and production metrics for use in monitoring progress during the year and over time, with a focus on the milking herd.

Website: [www.dairyprofit.cornell.edu](http://www.dairyprofit.cornell.edu)

**Dehm Associates Dairy Dashboard:** Benchmarking program for monthly, quarterly and annual financial analysis for preparing trends, budgets, actual-to-budget comparisons, and use within management teams.

Contact: Dehm Associates at:  
Email: [bdehm@dehmassociates.com](mailto:bdehm@dehmassociates.com)  
Tel: 585-243-4427  
Fax: 585-243-0848  
Website: [www.dehmassociates.com](http://www.dehmassociates.com)

**Farm Credit Northeast Dairy Benchmark Summary:**

Annual financial analysis prepared for New England and New York producers through the efforts of Farm Credit East, Yankee and Maine Farm Credit associations.

Contact: Local Farm Credit office  
Websites: [www.farmcrediteast.com](http://www.farmcrediteast.com)  
[www.yankeeaca.com](http://www.yankeeaca.com)  
[www.farmcreditmaine.com](http://www.farmcreditmaine.com)

**Farm Credit Large Herd Benchmark Program:** Detailed annual business summary reports, meetings and follow-up targeted specifically for participating dairies across multiple states.

Contact: Local Farm Credit office or Farm Credit business consultant  
Websites: [www.farmcrediteast.com](http://www.farmcrediteast.com)  
[www.yankeeaca.com](http://www.yankeeaca.com)  
[www.farmcreditmaine.com](http://www.farmcreditmaine.com)

**Farm Credit Dairy Profit Analyzer:** Monthly or quarterly business analysis program for tracking year-to-date earnings, trends and comparison to budget and benchmarking within management teams.

Contact: Local Farm Credit office  
Websites: [www.farmcrediteast.com](http://www.farmcrediteast.com)  
[www.yankeeaca.com](http://www.yankeeaca.com)  
[www.farmcreditmaine.com](http://www.farmcreditmaine.com)